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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,980	02/20/2004	Sreedhara Narayanaswamy	063170.6595	7138

5073 7590 06/11/2009

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EXAMINER

MITCHELL, JASON D

ART UNIT	PAPER NUMBER
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2193

NOTIFICATION DATE	DELIVERY MODE
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06/11/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/782,980	Applicant(s) NARAYANASWAMY ET AL.	
	Examiner Jason Mitchell	Art Unit 2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8-18 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8-18 and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/13/09</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This action is in response to an amendment filed on 3/2/09.

Claims 1-6, 8-18 and 21-23 are pending in this application.

Response to Arguments

Section 101 Rejection

The applicant states:

Independent Claim 13, as amended, is directed to a system for automatically deploying program units to a cluster of networked servers that comprises "an application server cluster comprising a set of a plurality of application servers." The system also includes "a network deployment server in communication with the application server cluster." Both the "plurality of application servers" and the "network deployment servers recited computer-related elements and constitute "machines." Accordingly, the system of Claim 13 is "tied to a particular machine." Therefore, the system recited in Claim 13 constitutes statutory subject matter under 35 U.S.C. § 101 according to the applicable case law.

The examiner respectfully disagrees. It is reasonable to interpret the term "server" to describe only the software providing the "server" functionality (e.g. in the case of a deployment server, the software responsible for bundling and deploying applications). This interpretation is supported for example in lines 13-14 the claim which recite an "application server installed on one or more nodes". This language clearly illustrates a 'server' referring to software alone (i.e. the server is distinct from the node on which it is installed. According references to a 'server' do not meet the requirements of a statutory claim. Likewise the reference to a 'node' does not cause the claim to become statutory because 1) such a reference can reasonably be interpreted as referring only to a abstract concept (e.g. a node on a network map or graph) and 2)

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because the node itself is not claimed as part of the system which instead only retrieves data (from a deployment server) related to the node. This rejection is easily overcome by amending the claim to explicitly recite the hardware (e.g. processor and memory) on which the various servers are executed.

Section 112 Rejection

Applicant's arguments, with respect to the section 112 rejection have been fully considered and are persuasive. The 35 USC 112 2nd rejection of claim 4 has been withdrawn.

Section 103 Rejections

Applicant's arguments regarding the section 103 rejections have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 13-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claim 13 fails to fall within a statutory category of invention. It is directed to a program itself (i.e. a system comprising, data, cluster and container management modules operable to perform an action), not a process occurring as a result of executing

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the program, a machine programmed to operate in accordance with the program or a manufacture structurally and functionally interconnected with the program in a manner which enables the program to act as a computer component and realize its functionality. It's also clearly not directed to a composition of matter. Therefore it is rejected as being non-statutory under 35 USC 101.

Claims 14-16 depend from claim 13 and do not address this issue and are thus also rejected as being non-statutory under 35 USC 101.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8-18 and 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over “BEA WebLogic Portal Deployment Guide” version 4.4 (BEA) in view of US 7,080,361 to Aigen (Aigen).

Regarding Claims 1 and 11: BEA discloses a method of automatically deploying program units to a cluster of networked servers, comprising:

assembling one or more program units for deploying to a cluster of one or more application servers (pg. 4-2 "assemble a Web application");

retrieving information related to the cluster of networked servers from a deployment server (*bridging pp. 6-11 – 6-12 “Change the value of the <param-value> ... to match the ... listen ports of the proxy server”; note the listen port information must have been retrieved; also note pg. 6-2 1st par. “the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services”*);

generating deployment descriptors from the information retrieved from the deployment server (*bridging pp. 6-11 – 6-12 “Change the value of the <param-value> ... to match the ... listen ports of the proxy server”; pg. 4-5, 1st par. “two deployment descriptors: web.xml ... and weblogic.xml”*); and

deploying the one or more program units to the cluster of the one or more application servers using at least the deployment descriptor (*pg. 6-18 “Deploy Your Web Application ... to the Cluster”*).

BEA does not explicitly disclose retrieving ‘type’ information related to the cluster of networked servers and automatically generating a script to use a specific utility of the application server for development of deployment descriptors suitable for the type of application server.

Aigen teaches retrieving type information of an application server (*col. 3, lines 40-42 “The user then specifies (50) the application server on which the application will be run.”*) and automatically generating a script to use a specific utility of the application server (*col. 3, lines 44-49 “the batch command file to generate the EJB file 70 ...*

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another batch command file to deploy the EJB Jar ... file in the application server 80") to generate deployment descriptors suitable for the type of application server (col. 5, lines 1-5 "vendor specific XML deployment file generation 1100").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Aigen's automated, application server specific, deployment descriptor generation functionality (e.g. col. 4, line 63-col. 5, line 5) into BEA's deployment facility (pg. 6-11, last par. "Before you deploy your application, configure your Web application"). Those of ordinary skill in the art would have been motivated to do so to ease workload and avoid errors (Aigen col. 3, lines "reduces days or weeks ... to minutes ... eliminates the error-prone job"; BEA pg. 6-22 1st full par. "Because the commands ... are long and prone to typographical errors, we recommend that you use scripts")

Regarding Claims 2 and 12: The rejections of claims 1 and 11 are incorporated respectively; further BEA discloses creating naming and directory interface binding files (pg. 4-23 "The weblogic.xml file must specify the JNDI names for each EJB").

Regarding Claim 3: The rejection of claim 1 is incorporated; further, as noted in the rejection of the parent claim it would have been obvious to automate the retrieval of information related to the one or more application servers in the cluster (bridging pp. 6-11 – 6-12 "Change the value of the <param-value> ... to match the ... listen ports of the

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proxy server”; note the listen port information must have been retrieved; also note pg. 6-2 1st par. “the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services”).

Regarding Claims 4, 6 and 18: The rejections of claims 3, 5 and 17 are incorporated; further BEA discloses dynamically allowing a user to select from the one or more application servers (pg. 6-19 item 4.d. *“Move your cluster from the Available to the Chosen list and click Apply”*; pg. 3-30 *“Web application targeted to a ... virtual host”*).

Regarding Claim 5: The rejection of claim 1 is incorporated; further BEA discloses the retrieving comprises:

retrieving information related to one or more virtual hosts in the cluster
(pg. 3-30, 1st par. *“application targeted to a ... virtual host”*).

Regarding Claim 8: The rejection of claim 1 is incorporated; further BEA discloses the assembling further comprises providing a user interface to gather information from a user about the one or more program units being deployed (pg. 4-2 *“This topic describes how to assemble a Web application ... This topic includes ... Create and Populate a Directory Tree”*).

Regarding Claim 9: The rejection of claim 1 is incorporated; further BEA discloses the cluster of networked servers includes at least an application server and one or more

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clones of the application server (pg. 6-2, 1st par. *"In any WebLogic Server cluster, the host for the Administration Server is the only computer that contains the physical files that describe the cluster"*).

Regarding Claim 10: The method of claim 1, further including allowing re-deploying of already deployed one or more program units to the cluster (pg. 7-23 item 2 "update existing files").

Regarding Claim 13: BEA discloses a system automatically deploying program units to a cluster of networked servers, comprising:

an application server cluster comprising a set of a plurality of application servers (pg. 6-18 *"Deploy Your Web Application ... to the Cluster"*); and

a network deployment server in communication with the application server cluster, the at least one network deployment server (pg. 6-2, 1st par. *"the Administration Server host"*) comprising:

data source management module operable to retrieve data source information from an application server to which to deploy one or more program units (pg. 6-2, 4th bullet *"The E-Business Control Center deploys data to an additional synchronization server"*);

cluster management module operable to retrieve cluster information related to the application server (pg. 6-2, 1st par. *"If you want to modify the cluster ... configuration, you do so from the Administration Server host"*); and

container management module operable to:

retrieve container information related to the application server

(bridging pp. 6-11 – 6-12 “Change the value of the <param-value> ... to match the ... listen ports of the proxy server”; note the listen port information must have been retrieved; also note pg. 6-2 1st par. “the host ... contains the physical files that describe the cluster, enterprise application, and other supporting services”); and

generate deployment descriptors from the information retrieved container information *(bridging pp. 6-11 – 6-12 “Change the value of the <param-value> ... to match the ... listen ports of the proxy server”; pg. 4-5, 1st par. “two deployment descriptors: web.xml ... and weblogic.xml”);*

wherein the data source information, cluster information, container information, and deployment descriptors are used to automatically deploy the one or more program units to the plurality of application servers (pg. 6-18 “Deploy Your Web Application ... to the Cluster”).

Aigen teaches retrieving type information of an application server (col. 3, lines 40-42

“The user then specifies (50) the application server on which the application will be run.”) and automatically generating a script to use a specific utility of the application

server (col. 3, lines 44-49 “the batch command file to generate the EJB file 70 ...

another batch command file to deploy the EJB Jar ... file in the application server 80”) to

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generate deployment descriptors suitable for the type of application server (*col. 5, lines 1-5 "vendor specific XML deployment file generation 1100"*).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Aigen's automated, application server specific, deployment descriptor generation functionality (*e.g. col. 4, line 63-col. 5, line 5*) into BEA's deployment facility (*pg. 6-11, last par. "Before you deploy your application, configure your Web application"*). Those of ordinary skill in the art would have been motivated to do so to ease workload and avoid errors (*Aigen col. 3, lines "reduces days or weeks ... to minutes ... eliminates the error-prone job"*; *BEA pg. 6-22 1st full par. "Because the commands ... are long and prone to typographical errors, we recommend that you use scripts"*)

Regarding Claim 14: The rejection of claim 13 is incorporated; further BEA discloses a user interface module to retrieve information from a user related to one or more user preferences for deploying the one or more program units (*pg. 6-2, 4th bullet "The E-Business Control Center"*).

Regarding Claim 15: The rejection of claim 14 is incorporated; further BEA discloses the user interface module is further operable to allow the user to change the retrieved data source information (*pg. 7-1, 5th bullet "Monitoring and Managing Data Repositories"*).

Regarding Claim 16: The rejection of claim 14 is incorporated; further BEA discloses the user interface module is further operable to allow the user to select a target cluster from the retrieved cluster information, to which to automatically deploy the one or more program units (see *e.g. Fig. 6-6 on pg. 6-20*).

Regarding Claim 17: The rejection of claim 1 is incorporated; further BEA discloses retrieving information related to one or more virtual hosts in the cluster (*pg. 3-30, 1st par. "application targeted to a ... virtual host"*).

Further, it would have been obvious to automate this functionality as discussed in the parent claim.

Regarding Claims 21-23: The rejections of claims 1, 11 and 13 are incorporated respectively; further BEA discloses modifying deployment descriptors (*pg. 5-3, last par. "Modify application.xml ... application-config.xml"*):

It would at least have been obvious to one of ordinary skill in the art at the time the invention was made modify Aigen's generated deployment descriptors if they required further modification to function properly.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason Mitchell whose telephone number is (571)272-3728. The examiner can normally be reached on Monday-Thursday and alternate Fridays 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bullock Lewis can be reached on (571) 272-3759. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Mitchell/
Examiner, Art Unit 2193

/Lewis A. Bullock, Jr./
Supervisory Patent Examiner, Art Unit 2193